

TYPHOON PREPAREDNESS

To adequately prepare for a typhoon, you must first understand what one is. A typhoon is a type of tropical cyclone, which is a general term for a circulating weather system over tropical waters. In the Northern Hemisphere they circulate counter-clockwise. They are classified as follows:

- Tropical Depression - An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph or less.
- Tropical Storm - An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39-73 mph.
- Typhoon - An intense tropical weather system with a well-defined circulation and maximum sustained winds of 74 mph or higher.

Powered by heat from the sea, typhoons are moved by the easterly trade winds, the temperate westerlies and their own energy. From the core the winds have great velocity and as they move ashore they sweep the ocean inward giving birth to torrential rains and flooding.

Of the 10 tropical storms that occur each year, on the average, 6 will become typhoons, developing in the Pacific Ocean.

Since there is little we can do to prevent typhoons, our best defenses are understanding the storm, early warning and preparation.

How the Typhoon Forms and Grows

Warm water, moisture and a wind pattern that spirals inward are the three things that a typhoon needs to grow. When thunderstorms form, moving the warm air higher into the atmosphere and the winds at these levels are light, the structure remains in tact and can strengthen.

The eye of the typhoon is the center and is very calm. The most dangerous area is the eye-wall. At 50,000 feet the air is moved outward and that increases the upward motion.

When the typhoon makes landfall you get the Storm Surge. This is an area 50-100 miles wide that moves in. A combination of strong storm and shallow water creates a higher, more dangerous surge, which is the greatest threat to man and structure. If the surge happens to come at high tide then the water is even higher. This is called a Storm Tide.

Typhoon force winds can topple poorly constructed buildings and mobile homes. Debris becomes flying missiles and wind gusts can down trees and power lines causing disruption in the basic utilities.

Rains moving inland can produce 10 inches or more and cause deadly flooding. This is a great inland danger, also.

Typhoons can also spawn tornadoes from the thunderstorms on the outer bands of the typhoon and within the eye-wall.

Personal Risk

While warning systems have increased advance knowledge of storms and typhoons, the roads around the urban areas have not kept pace when it comes to evacuation ability and have grown complacent and delay evacuation.

The typhoon threat has been low over the past 20-30 years but typhoons, like other weather patterns come in cycles. Your best defense is to prepare yourself, your family and your community.

Warning Systems and Codes

The National Weather Service and the Joint Typhoon Warning Center uses satellites, reconnaissance planes, radar and typhoon models to evaluate the potential for a tropical depression or storm to grow into a typhoon.

The National Weather Service, NOAA Weather Radio and your local weather and news stations are the best source for current storm information. Listen for the following watches and warning:

- **Tropical Storm Watch** - This means that the conditions are possible for the formation of a tropical storm in the area of the watch. It is usually issued for a 36-hour period.
- **Tropical Storm Warning** - Storm conditions are expected within the area of the warning, usually within 24 hours.
- **Typhoon Condition 3** – typhoon's arrival is possible within 36 to 24 hours. You should take this time to prepare and stock up on perishable supplies.
- **Typhoon Condition 2** – Typhoon's arrival is expected within 24 hours. Be sure you have completed your Disaster Preparedness Plan and be ready to evacuate.
- **Typhoon Condition 1**- Typhoon is 12 hours away or is on location.

Your Personal Preparedness

- Know the risk to your area.
- Know your evacuation routes.
- Know where emergency shelters are.
- Follow your Family Disaster Preparedness Plan.

If you are in the **WATCH** area, make sure you listen to the radio and local news. Fuel up your vehicles and check your evacuation routes. If you live in a mobile home, make sure your tie downs are secure. Have a supply of cash and move your Grab and Go Packs near the door. Make sure your Automobile Evacuation Kit is in the vehicle and be prepared to pack a cooler so that you can evacuate. Get your pets ready to travel by putting them in pet carriers or locked in a room so that they don't run off. Check outside for any lawn furniture or lightweight objects that could become projectiles in high winds.

Be prepared to evacuate if you live in a mobile home, a high-rise building (winds are stronger at higher elevations) at or on the coastal areas.

When the **WATCH** has been upgraded to a **WARNING**, stay tuned to local weather radio and news stations. Finish all disaster preparations. If instructed to evacuate, do so immediately. Notify family and friends who are **NOT** in the storm area where you will be going. Make sure you have your important papers. Note that most shelters will **NOT** allow

pets. Make other arrangements or plan on having them ride out the storm in the home or in your vehicle. Make sure you have food and water for them.

Only stay in your home if you have **NOT** been instructed to leave. Stay in the interior rooms away from doors and windows. Prepare by doing the following:

- Turn the refrigerator and freezer up to the highest setting. In the event that electricity is cut off your refrigerator and freezer will stay colder longer.
- Turn off utilities like water and gas if instructed to do so.
- Turn off propane tanks.
- Unplug small appliances.
- Fill your bathtubs, sinks, and other containers with water for using if water service is disrupted.
- Close all internal doors and brace all external doors.
- If you live in a two-story home, stay on the first floor in an interior room.
- If you live in a multiple-story building and are away from storm surges, take refuge on the first or second floors in the hallways.
- Be aware of the eye of the storm. On the other side of the eye the winds will reverse direction and return to typhoon strength very quickly.
- Secure or move inside outdoor items such as toys, grills, bicycles, furniture, plants and anything moveable on the balcony. Move potted plants and other heavy objects away from windows inside as well.
- Watch for leaks around windows and doors. If the wind is strong enough, water may be blown into your home even if the windows are closed. Have handy towels, rags and mops.

After the Storm and Danger Has Passed

- Listen to the radio or local news.
- Wait until the area has been declared safe to return if you evacuated.
- Avoid bridges and washed out roads.

- Avoid moving more than 6 inches deep of water since you can still be swept away. Also avoid standing water since downed power lines may have it electrically charged.
- Check utilities before you use them in case they were damaged. Do not drink tap water until it has been checked for bacteria.
- Don't use the telephone unless it's an emergency.
- After the storm is over, check for broken glass, fallen trees and downed power lines which may present safety hazards near children's school bus stops, outdoor trash areas, around your car, etc.

When the storm has completely passed and the danger is gone, evaluate how your family handled this emergency and update your Family Disaster Plan so you'll be more prepared for the next storm.